

# Intern Showcase Presentation Spring 2014

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University of Central Florida, Orlando, FL

B.S. Electrical Engineering

AD-T, Research and Technology Management Office

June 2013 – Present

Graduation Date: May 1<sup>st</sup> 2014

# Overview

- Education
- Internship Experiences
- What I Do
- Other Experiences (Through NASA)
- Looking Forward

# Education

## **Brevard Community College**

- Associates in Arts (A.A.)
- Cocoa, FL
- 2008 - 2011



## **University of Central Florida**

- B.S. Electrical Engineering
- Orlando, FL
- 2011-2014



# NASA Kennedy Internship Program

- Summer 2012
- Chief Engineers Office (NE-O)
- Rocket University Program
- Mentors:
  - Chris Iannello
  - Nichole Dawkins



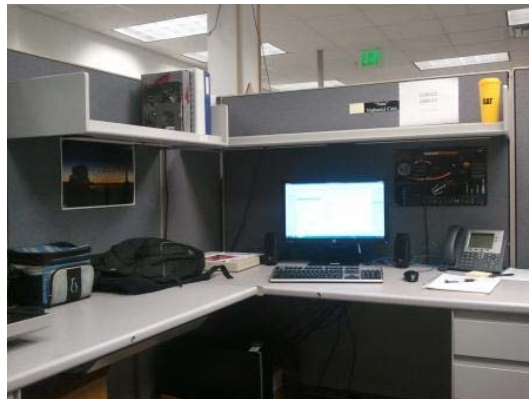
# Rocket University Experiences

- Unmanned Aerial Systems (UAS) Project
  - State Estimator Design and Testing
  - Embedded Systems Design
  - Software Management
- Balloon Team Support
  - Balloon Staging and Setup
  - VAB roof telemetry ground station
  - Dosimetry Payload Support
- NEO Engine Test Stand
  - Ground Station Trailer Setup
  - Ethernet and Comm System Setup
- RUBICS Cubesat
  - Avionics Team Support
  - GPS Troubleshoot



# Pathways Perm Intern

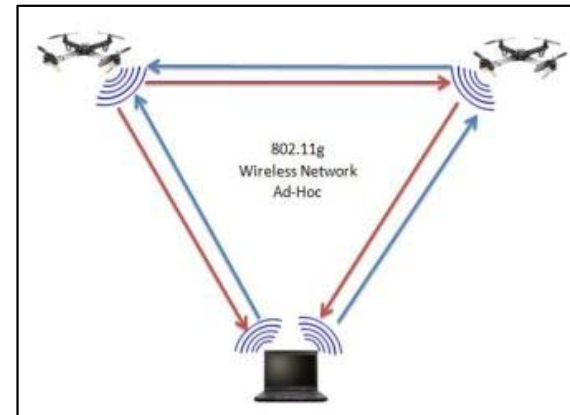
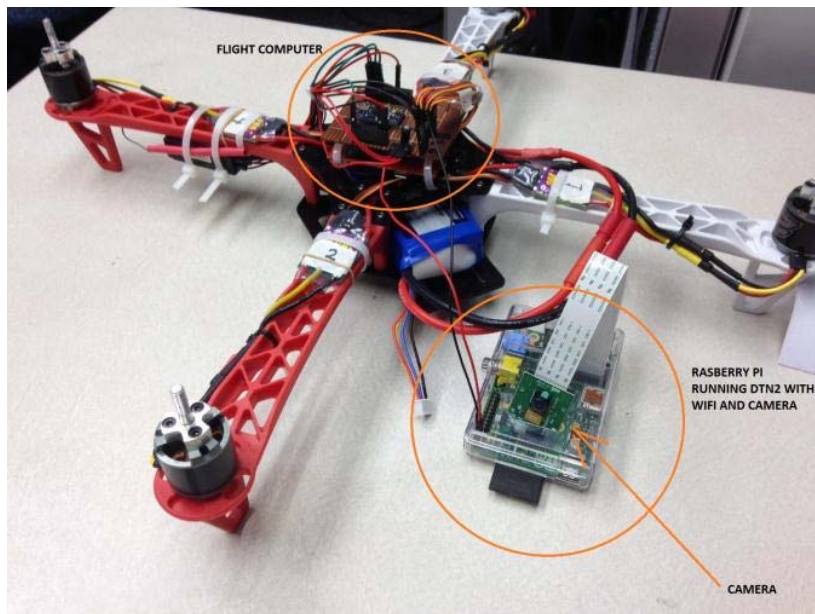
- June 2013 - Present
- Center Planning And Development (AD-T)
- KSC Comm Team (IT-C1)
- Mentors:
  - Marc Seibert
  - Phillip Michael



# What I Do

- Support the KSC Comm Team
  - Work at M7-453 (aka “the building behind the O&C with all the boats”)
- Work with DTN (Delay Tolerant Networking)
  - Develop a quadcopter platform for DTN feasibility testing
  - Partly my senior design project
- Quadcopter Flight Systems Development
  - Develop a custom controller for a quadcopter flight system for possible future use
  - Create open software for flight control and telemetry systems
- Support various projects at KSC including:
  - Rocket University
  - Morpheous Lander Prototype Testing
  - NASA Robotics Mining Competition (Formerly Lunabotics)
  - KaBOOM Antenna Project

# My Project





# Lunabotics

- KSC lunabotics mining competition, May 2014
- Comm Team Support



# Boat Day

- KSC Comm Team boat testing
- Support watercraft for NASA missions
- Summer 2013
- R/V Nautilus, R/V Latency



# Morpheus Testing

- Comm Team Support
- Aerial Imagery Support (via Hexacopter)
- Early Spring 2014



# Other NASA experiences

- On Center Launches
- VAB roof
- LC39 White Room, Rubber Room tour
- Atlantis Roll-out
- Endeavor Cockpit Tour
- Endeavor Departure





# Conclusion

## Good Experiences

- Chief Engineers Office
  - Rocket University
  - Avionics & Telemetry
  - Embedded Systems Design
- KSC Comm Team
  - Communication & Network Systems
  - Linux Environment
  - Control System Development

## What's Next...

- Graduation May 1<sup>st</sup>
- Hopefully continue to work for NASA long term



# Questions?

(THANK YOU!)

